

Researchers develop novel clip-on device for smartphones to analyse sperm

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Male infertility tests are currently performed exclusively in labs,

requiring several visits and several days to get a result. The EU-funded QS Mobile project has developed a male fertility test that can be carried out at home quickly, accurately and more cheaply than in the lab.

Male fertility testing on a smartphone

The QS Mobile system is a novel device that attaches to smartphones for male sperm analysis. To eliminate manual labour errors, it combines microfluidics technology, compact optics and advanced video image analysis to automate sperm tests. Moreover, its precision and reliability levels are comparable to labs.

Results from the device cover all three types of sperm measurements required by the WHO—concentration, different motility classes and spermatozoa morphology analysis.

Market targets

"Based on demographics and socioeconomic data we have identified key target groups for our solution for a global market," states Erik Nordquist, coordinator of the QS Mobile project and co-founder and CEO of Biophos SA, a Swiss SME. The QS Mobile device is targeted at men who are planning children, undergoing fertility treatments or who are looking to increase their chances of conception by adopting a new personal routine. It can also be used by hospitals that don't have a dedicated fertility lab.

QS Mobile has undertaken a full market feasibility study. Moreover, they have identified the demand for a new disruptive [male fertility](#) diagnostic solution and estimated the market value. "We reviewed the business to consumer (B2C) go-to-market strategy and made necessary adjustments, verifying our five key markets," states Nordquist. The

rigorous testing and approval will make sure the team is better prepared for the next phase.

Sales and distribution

The QS Mobile team has put together a multiple sales and distribution proposition including cost breakdown. Moreover, they have established scientific and commercial partners in a few hand-picked markets.

With the new regulatory landscape of the General Data Protection Regulation (GDPR) in mind, the project has defined its impact. Specifically, they have outlined how current and future products need to be adapted or integrated at the latest by 2022 in accordance with the new directives relating to GDPR.

Next phase for QS Mobile

The first phase of commercialisation with business to business (B2B) customers started in January 2018. QS Mobile expects to have four selected markets covered with at least one partner in each market during 2018. In parallel with the market entry for B2B, the objective is to finalise QS Mobile development. By 2027, the company Biophos intends to serve 15-20 % of the total market with around EUR 200 million annual revenue.

QS Mobile has identified a clear sales and marketing strategy. Summing up his vision for the future, Nordquist concludes, "The goal of this project is to prepare QS Mobile for market launch by scaling up our QS Mobile prototype into a final QS Mobile solution and to prepare for [market](#) launch by creating awareness to fight the stigma of male fertility issues."

Provided by CORDIS

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